to the notice in the purchase of items/disposal thereof in the Super Bazer Delhi;

(b) the details thereof and the action taken thereon;

(c) the steps taken to revamp and revitalise the Super Bazar and the number of complaints received about the overcharging of rates by its branches, and

(d) whether there is any proposal to involve the Super Bazar in the Public Distribution System by directing it to open fair price shops in all its branch stores, if not, the reasons thereof?

THE MINISTER OF STATE IN THE MINISTRY OF CIVIL SUPPLIES, CONSUMER AFFAIRS & PUBLIC DISTRIBUTION (SHRI KAMALUDDIN AHMED): (a) and (b). The Cooperative Store Ltd, Delhi popularly know as Super Bazar has stated that three instances of malpractices have come to their notice during the year 1991-92. In one case orders for purchase of footwear which were not approved by the purchase Committee were placed with the party and goods were purchased. In other two cases, tea in excess of normal requirement was purchased, Explanations of the concerned employees have been called and suitable action will be taken against them.

(c) Super Bazar has informed that their purchase system is functioning adequately and is reviewed from time to time. Fortnightly tender system has been introduced to ensure purchase at competitive rates. During 1991-92 four complaints of overcharging of rates were received.

(d) No, Sir, Super Bazar has informed that in the past the proposal to open fair price shops in the branches of Super Bazar has

been examined. The proposal was not found to be practical due to non-availability of additional accommodation on reasonable rates. Super Bazar is already selling similar items of different quality form their branches at different rates and to sell similar items under fair price shops from the same outlet would pose many day to day problems of inventory control and accounting. However, Super Bazar is selling almost all items of daily need including some items already under Public Distribution System.

Language for Computer

6659. SHRI SHANKERSINH VAGHELA: Will the PRIME MINISTER be pleased to refer to the reply given on December 4, 1991 to Starred Question No. 183 and state:

(a) the progress made in the project of solving Artificial Intelligence System through Indian Sanskrit Tradition in each of the last three years and the current year;

(b) the details of the research centres where Sanskrit is being used in computer work;

(c) when the work for Standardising a Code under the Technology Development for Indian Languages had begun and whether any code was so devised, if so, when and how many times and the progress made since then in this regard; and

(d) the target fixed for accepting Sanskrit as the computer language?

THE MINSTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS (SHRIMATI MARGARET ALVA): (a) Under the Technology Development for Indian Languages (TDIL) Programme of the Department of Electronics, a number of projects involving

artificial intelligence, Sanskrit and computers have been initiated. The details of projects alongwith the progress made so far are given in the Statement attached.

(b) and (d). The details of the centres where work is being carried out in Sanskirt and Computers under TDIL Programme are given in the enclose Statement II Though there is no indication that Sanskrit as such can be used as a language for computers, there is a view that formal structure and strict adherence to rules of the Sanskrit grammar may provide insight into the natural languages processing in computers. It has been observed that Sanskrit has a potential to become a model for Knowledge representation and as a link language for Machine Translation.

(c) The work on standardisation of Code for Indian Languages was initiated during seventies. In 1983, the Department of Electronics announced the Indian Standard Script Code for Information Interchange (ISSCI-83), which was revised in 1986. In 1988, there was further revision to make it more suitable for personal computers. The final version of the Indian Standard Script Code for Information Interchange (ISCII) was published by Bureau of Indian Standards in December, 1991.

STATEMENT-I

List of project Related to "Artificial Intellegence, Sanskrit and Computer" Funded under TDIL Programmer

Project Name	Name of the Institution	Year of Initiation	Status
1	2	3	4
(1) Utilisation of Sanskrit in Computer based semantic processing (Kriya Research.) Phase II	Academy of Sanskrit Research, Melkote	1991	Phase I of the project has been completed by the end of March, 1992. A dictionary of technical Sanskrit words has been built up giving their precise meaning Software for implementation of the Shabda Bodha techniques in computers have been developed.
(2) Exploring Information processing Structuring in Sanskrit Shastra.	Sampurnanand Sanskrit University, Varanasi	1991	On-going
(3) Computer Assisted Sanskrit Teaching/ Learning Environment (CASTLE) Part I & II, Phase II	J.N.U. New Delhi SLBSR Sanskrit Vidyapeeth, New Delhi	1988	Phase I of the project has been completed. in March 1992. Packages such as intelligent tutoring system for Sanskrit Sandhi, Vicheda, Formation of Pades etc. for Computer Assisted Sanskrit Teaching Learning have been developed.

Project Name	Name of the Institution	Year of Initiation	Status
1	2	3	4
(4) Development of Corpora of Text of Indian Language in Machine Readable form (Sanskrit)	Sampurnanand Sanskrit University, Varanasi	1991	Preparation of Sanskrit Corpora with contextual meanings of words, and other tags for Machine Translation etc. is in Progress.

STATEMENT-II

List of Projects Related to "Sanskrit and Computer" Funded under TDIL Programme

Project Name	Name of the institution	Year of Initiation
1	2	3
(1) Utilisation of Sanskrit in Computer based semanti processing (Kriya Research), Phase I	Academy of Sanskrit Research Melkot	199
(2) Exploring Information processing Structuring i Sanskrit Shastra	Sampurnanand Sanskrit University Varanas	199
(3) Resource Centre for Computer Assisted Learning Teaching Programme for B.Ed, M.Ed. Students	SLBS Rashtriya Sanskrit Vidyapeeth, Delhi	1991
(4) Computer Assisted Sanskrit Teaching/Learning Environment (Castle) Part I & II, Phase II.	SLES Rashtriya Sanskrit Vidhyapeeth, New Delhi.	1988
(5) Computer Assisted Sanskrit Teaching/ Learning Environment (CASTLE) Part I & II, Phase II	J.N.U., New Delhi	1988
(6) Development of Corpora of Text of Indian Language in Machine Readable form (Sanskrit)	Sampurnanand Sanskrit University, Varanasi	1991
(7) Prepartion of Curriculum Guidelines and Course material for introduction of Sanskrit Vyakaran, Mimamsa and Nirukta to Linguists and Computer Scientist.	SLESR Sanskrit Vidyapeeth, Delhi Rashtriya Sanskrit Vidyapeeth Tirupati Gurukul Kangri University, Hardwar.	1991